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ABSTRACT

The purpose of this paper is threefold: to explore the current status of group process research; to present an automated system for collecting group observations; and to provide a framework for a training method for observers. In the discussion of group process research it is suggested that it remains largely unclear what the relationships are between process variables and member outcomes and what elements comprise each of these assumedly important process variables. The models, means, and methods of group process are discussed. It is noted that the means for conducting observations and descriptions of group process events could be categorized as being events themselves, such as member behaviors or verbal statements. Following this discussion, the "Group Observer" (Wilson, 1989), an automated system for collecting group process observations from the perspective of a variety of process observation models is presented. The Group Observer, currently undergoing field testing, was developed to ease the collection of group process data for research, training, and supervision. Finally, the "Systematic Rater Training Model," designed to enhance the utility of the observational data by increasing the reliability, validity, and motivation of group process observers, is presented. The paper concludes that for group process research to flourish, it will be necessary for researchers to record "who does what to whom in the process...of their interaction." In summary, success depends on the use of carefully trained observers of the group process phenomenon assisted by automated data recording devices. Five figures and a list of training model components are included. (ABL)

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Observing Groups at Work:

Models, Means, and Methods

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OBSERVING GROUPS AT WORK: MODELS, MEANS, AND METHODS

The purpose of this paper is threefold. First, the current status of group process research will be explored accompanied by a brief review of models, means, and methods. Following this discussion, The GROUP OBSERVER (Wilson, 1989), an automated system for collecting group process observations from the perspective of a variety of process observation models will be presented. The GROUP OBSERVER, currently undergoing field testing, was developed to ease the collection of group process data for research, training, and supervision. Finally, to enhance the utility of observational data, a training method (Wilson, 1982) for increasing the reliability, validity, and motivation of group process observers will be presented.

Group Process Research

R. F. Bales (1980a) once observed, in a twist on Freud, that much of social science research suffers from a form of "physics envy." A certain preoccupation with laboratory research designs has served to inhibit research progress in the observation, description, and documentation of process events. Actually, as Kaul and Bednar (1986) accurately pointed out, the "hard sciences" have always taken care to include careful observations and descriptions in the conduct and reporting of research. This is a point which seems to have been generally ignored or dismissed by researchers in the so-called "soft sciences," despite Loevinger's astute maxim that the cornerstone of all studies in human behavior require "basic observations on which minimally qualified persons will agree" (Loevinger, 1965, p. 81).

Process research in group work is no different. Although some gains have been made in the areas of pre-group training, structure, cohesion, self-disclosure, interpersonal feedback, and leadership (e.g., Kaul & Bednar, 1986; Lieberman, Yalom, & Miles, 1973; Stockton & Morran, 1982), it remains largely unclear what the relationships are between these process variables and member outcomes and, more critically, what elements comprise each of these assumedly important process variables. For instance, in order to understand what "cohesion" is, it is imperative that very careful process research be conducted to carefully observe and describe its components, to "dismember" it, to use Kaul and Bednar's (1986, p. 711) graphic term.

As practitioners and educators in group work, we are forced to operate very much on faith. A major article of that faith encompasses the therapeutic factors of group therapy, so frequently cited from Yalom (1985), that are assumed to account for therapeutic outcomes in group members. These factors command powerful intuitive validity. However, one is hard-pressed to muster the necessary process research findings to document, for instance, how instillation of hope really functions, what comprises it, and how it relates to any outcomes achieved. Dismemberment of the factor is needed, requiring once again the application of step one in science: Careful observation, description, and documentation.

Of course, the group milieu is a complex, dynamic one making the functions of careful observation, description, and documentation difficult, challenging, and perhaps, discouraging. As an example, consider only the independent variable of group size in relation to complexity of interaction. While a group of size 3 can produce but 3

interactive pairs, a group of size 5 holds the potential for 10 interactive pairs, and a group of size 12 (generally considered the upper limit for adult groups) can produce up to 66 interactive pairs! (As an aside, the formula for computing pairs based on the numbers of group members is: N(N-1)/2). This example quickly illustrates the degree of challenge involved in group process observation and description.

Models for Process Research

The study of group process, as Bales (1970) described it, involves observing "who does what to whom in the process (time order) of their interaction" (p. 92). Theorists in the area of group work vary in the degree to which they attend to the "what," the "who...to whom," and the "process (time order)" of group interaction. A summary of positions taken by representative theorists is classified in Table 1.

All group life theorists attend to the "what" of Bales formulation. The most obvious distinction among theorists is their identification of what individual, dyadic, or group behavior should be observed and recorded. Leary (1965) identified an eight level circumplex model for categorizing interpersonal behavior which could be reduced to two orthogonal factors (love--hate, dominance--submission). Carson (1969) provided a similar model and provided a connection to the Thibaut and Kelly (1959) notion of interpersonal outcomes. Hill's (1965) two dimensional system provided five levels for categorizing work style and four for distinguishing content styles. Bales (1970) twelve interpersonal behavior categories could be combined to provide scores for three value directions: upward--downward (similar to dominance vs. submission), positive-negative (similar to friendly vs. unfriendly), and forward--backward (similar to task orientation vs. socioemotional orientation). Stiles (1978) three factor taxonomy classified verbal messages according to whether the focus, frame of reference, and source of experience manifested in a verbal message originated with the speaker or the recipient.

The "who...to whom" portion of Bales' formulation implies that for each event of interest, a record should be made of the initiator/sender and the target/receiver. Some theorists are specific about how this is to be accomplished. Bales (1970) provided a form for interaction scoring which facilitated recording who-speaks-to-whom in what category of interaction. Cohen and Smith (1976) suggested an abbreviated sender x target format in which the sender was identified as whoever made a critical incident intervention and the target coded as one of three levels (individual, interpersonal, group). Hill's (1965) taxonomy has been used frequently for statement-by-statement classification of group interactions. Other theorists (Carson, 1969; Leary, 1965; Stiles, 1978) are silent on this point though sender and target could be identified while using their taxonomies to codify behavior.

The final portion of Bales' conception challenges the observer to record the sender, target, and behavior "in the process (time order) of [the] interaction." Meeting this challenge increases the difficulty of process observation by at least an order of magnitude.

Means, Methods, and Practical Concerns in Process Research

The means for conducting observations and descriptions of group process events could be categorized as being either "on-line" or "retrospective." That is, group process events themselves, such as member behaviors or verbal statements, could be directly described (on-line), or questionnaires could be used following a session to elicit reactions to the events (retrospective). Examples of the on-line formats include the Interaction Process Analysis system (Bales, 1951), where member behavior and roles can be directly categorized by observers in terms of instrumental or social-emotional acts, and the Hill Interaction Matrix (HIM) statement-by-statement version (Hill, 1965), where specific participant verbal interactions can be rated and categorized according to levels of content and work. Illustrations of retrospective formats include the Hill Interaction Matrix-Group (HIM-G) version (Hill, 1965), where verbal interaction can be assessed after-the-fact by responding to a questionnaire, and the Systematic Multiple Level Observation of Groups (SYMLOG, Bales, 1980b), where members describe after a group session their overt behavior and related values. In either approach to group observation, time delays posed significant problems in turning around data that were collected. These delays served to blunt the immediate usefulness of the data and, in our judgment, contributed to keeping group process research from advancing.

The advent of microcomputers has made it possible to remove the time lag impediment. Although these applications are in their early development, they hold promise for helping group process researchers to minimize some of the mechanical difficulties involved in this kind of research--to reduce complexity in the recording of observations and to increase the speed of post collection data summarization.

Greater facility in coping with the complexity and time demands associated with group process research is not the only solution to improving the quality of that type of research by a long shot. However, enhanced convenience may provide a necessary boost in the overall effort at advancing our abilities to observe, describe, and document the important events occurring within groups.

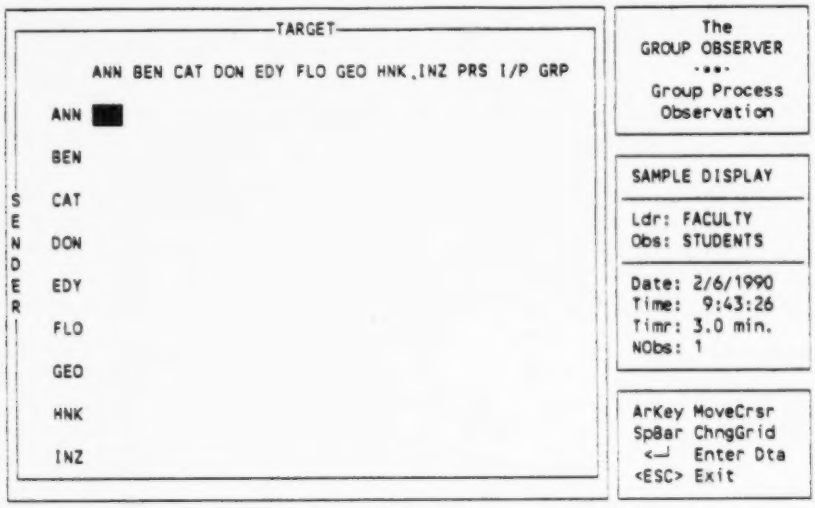
The GROUP OBSERVER

The GROUP OBSERVER (c) 1989 is an automated system for recording observations of group process phenomena and group worker interventions. The purpose of this program is to make it easier for group observers to record their observations. The program uses two observation screens (a sender-target screen and an attribute screen) to record each observation. The control keys are simple and straightforward. The program is capable of using one of several preprogrammed sender-target and attribute observation screens. In addition, custom observation screens can be constructed by the user. The GROUP OBSERVER is written in Turbo Pascal (v.5.5), and runs on MS-DOS compatible machines equipped with 512K memory, one floppy disk drive, and monitor. If connected to a dot matrix printer, report screens may be printed using a built in report generator and/or the DOS supported <Shft><PrtSc> print option.

Program Operation.

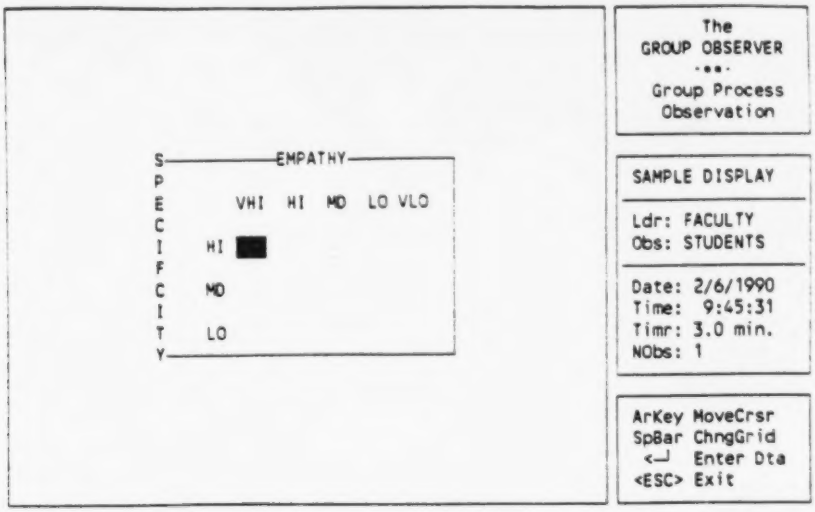
Individual modules provide: (a) **implementation (data screen) definition**, (b) **data entry**, (c) **report generation**, and (d) **file conversion.** The program is menu driven to provide a user friendly environment. During the **implementation definition** portion of the program, the user may enter an identifying name for the group, leader(s), and observer(s); choose whether to use timed data entry; choose whether to enter data for individuals in the group or to use pre-defined leader/member categories, and select or design the communication attribute(s) to be rated. **Data entry** is accomplished through the use movable pointers which highlight the data to be entered on a data entry grid. The Sender-Target grid is used to record the sender and target of each "message" (see Figure 1).

Figure 1. Sample Sender-Target Data Entry Grid



The Attribute Grid is used to describe characteristics of the message (see Figure 2).

Figure 2. Sample Attribute Data Entry Grid



The **report generation** phase provides two views of the observational data. The "Sender-to-Target" Report presents a frequency count of the number of times a group member talked or made an intervention (see Figure 3). By varying the level of each attribute being displayed, the user may browse through the data varying the degree of summarization.

Figure 3. Sample Sender-Target Report

SUMMARY OF SENDER-TARGET GRID << SAMPLE 2/ 6/1990 >>

		TARGET												
		ANN	BEN	CAT	DON	EDY	FLO	GEO	HNK	INZ	IND	I/P	GRP	TOT	PCT
S	ANN	0	0	1	0	0	0	0	0	1	2	0	0	2	13
E	BEN	0	0	0	0	1	0	0	0	0	1	0	0	1	7
N	CAT	0	0	0	0	0	0	0	0	0	0	0	1	1	7
D	DON	1	0	0	0	0	1	0	0	1	3	0	1	4	27
E	:	0	0	0	1	0	0	0	0	1	2	0	0	2	13
R	INZ	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOT	1	0	2	2	1	1	0	0	3	10	0	3	13	87
	PCT	7	0	13	13	7	7	0	0	20	67	0	20	87	

LEADER(S).....FACULTY
OBSERVER(S).....STUDENTS
NBR-OBSERVATIONS.. 15
TIMING INTERVAL... 3.00

<ESC> Return to REPORT MENU || SPECIFICITY $\overline{TOT}$ -- EMPATHY $\overline{TOT}$

The "Attribute" Report presents a frequency count of the number of times group members' communications occurred at each of the attribute levels (see Figure 4). By varying the level of the sender and target dimensions being displayed, the user may browse through the data varying the degree of summarization.

Figure 4. Sample Attribute Report

```
SUMMARY OF ATTRIBUTE GRID      << SAMPLE  2/ 6/1990 >>

                              EMPATHY
          VHI   HI   MD   LO  VLO  TOT  PCT
 S   HI    0    0    0    0    0    0    0
 P   MD    0    0    0    0    0    0    0
 E   LO    0    0    0    1    0    1    7
 C   TOT   0    0    0    1    0    1    7
 I   PCT   0    0    0    7    0    7
 F
 C   LEADER(S).....FACULTY
 I   OBSERVER.....STUDENTS
 T   NBR-OBSERVATIONS..   15
 Y   TIMING INTERVAL... 3.00

<ESC> Return to REPORT MENU     || SENDER TOT    <-> TARGET TOT
```

For either report screen, through the use of control keys, the program facilitates browsing through the data at varying levels of specificity or summarization. At any point, hard-copy can be generated through the use of the DOS <PrtSc> function.

The **file conversion** module permits converting The GROUP OBSERVER binary data files to ASCII format for transfer to other programs, e.g., word processing, database, spreadsheet, graphics, or statistical analysis (see Figure 5).

Figure 5. Sample Listing of ASCII File

```
....:....1....:....2....:....3....:....4....:....5....:....6....:....7

Implementation File A:\MYDIR\MYIMPLM.IMP
GRID Data File..... A:\MYDIR\MYDATA.DTA

Activity.......... TEST RUN          --Activity being observed?
Leader............ STUDENT           --Group leader?
Observer.......... FACULTY           --Observer?
UseTimer.......... TRUE              --Was timer used?
TimrIntvl......... 3.0               --Timer interval (in minutes)

S/T Dmnsns........ 2                 --Nbr of Snd/Tgt dimensions
S/T Dmn1 Name..... TARGET            --Name of horizontal dmnsn
S/T Dmn1 Lvls..... 3                 --Levels in horizontal dmnsn
S/T Dmn1 Lvl Names. PRS              ┐
S/T Dmn1 Lvl Names. I/P              ├--Names of horiz levels
S/T Dmn1 Lvl Names. GRP              ┘
S/T Dmn2 Name..... SNDR              --Name of vertical dmnsn
S/T Dmn2 Lvls..... 2                 --Levels in vertical dmnsn
S/T Dmn2 Lvl Names. ANN              ┐
S/T Dmn2 Lvl Names. BOB              ┘--Names of vertical levels

Atb Dmnsns........ 2                 --Nbr of attribute dimensions
Atb Dmn1 Name..... EMPATHY           --Name of horizontal dmnsn
Atb Dmn1 Lvls..... 3                 --Levels in horizontal dmns
Atb Dmn1 Lvl Names. LOW              ┐
Atb Dmn1 Lvl Names. MDM              ├--Names of horiz levels
Atb Dmn1 Lvl Names. HGH              ┘
Atb Dmn2 Name..... SPECIFCTY         --Name of vertical dmnsn
Atb Dmn2 Lvls..... 3                 --Levels in vertical dmnsn
Atb Dmn2 Lvl Names. LOW              ┐
Atb Dmn2 Lvl Names. MDM              ├--Names of vertical levels
Atb Dmn2 Lvl Names. HGH              ┘

Date.............. 1989/10/25        --Date obsrvtns were made

13:03:16   S 1   T 1  A1 2  A2 2     ┐
13:06:15   S 1   T 1  A1 2  A2 1     │
14:09:20   S 1   T 1  A1 2  A2 2     ├--Data entries
14:12:13   S 2   T 2  A1 3  A2 2     │
14:15:18   S 1   T 1  A1 2  A2 1     │
14:18:21   S 2   T 2  A1 3  A2 2     ┘
                                  |  |  |  |  |
                                  |  |  |  |  └--Level of Attribute 2
                                  |  |  |  └-----Level of Attribute 1
                                  |  |  └--------Level of Target
                                  |  └-----------Level of Sender
                                  └--------------Time data entry was made
```

Usage

The GROUP OBSERVER may be useful to group workers in several ways. Group work trainees may profit from using this structured technique to observe live or videotaped groups. In supervision, The GROUP OBSERVER facilitates data collection during live observation and provides immediate summaries for use in supervision feedback. Naturally, The GROUP OBSERVER is also a vehicle for collecting research data. Regardless of application, the GROUP OBSERVER will assist the group process observer by automating the process of recording of "who does what to whom in the process (time order) of their interaction" (Bales, 1970, p. 92).

Distribution

The GROUP OBSERVER is a shareware program, protected by copyright, and is not a public domain or freeware program. The GROUP OBSERVER is Copyright (c) 1989 by F. Robert Wilson, PhD, LPCC, Department of School Psychology and Counseling, University of Cincinnati, Cincinnati, OH 45221-0002 (Phone: 513/556-3345; EMail: wilson@ucbeh).

Systematic Rater Training Model

Although The GROUP OBSERVER may be helpful in automating the process of collecting observational data, the usefulness of the data is wholely dependent on the quality of training given to the observers. This final section provides a framework for training observers who will not only be able to perform their rating tasks with both reliability and validity at the completion of training (performance objective) but will also be motivated to do so throughout the course of the data collection activities (motivational objective).

Concerns About the Quality of Observational Data

A review of the use of observational data reported in five counseling related journals over a five year period (1979-1983) revealed that in general, the authors claimed that observers were trained but provided no information about their training (Wilson, Griswold, & Sunderland, 1984). This review found that though reliability coefficients were typically provided (computed from data collected during the experiment), the validity of observations was either not discussed or was dismissed with a claim of observer expertise. A replication review of contemporary counseling journals (1985-1989) is yielding similar results.

These reviews of rater usage reveal a disturbing trend in rater preparation. In both the historical and contemporary data, training, when mentioned, consists of (a) an explanation of the rating tasks, (b) an explanation of the concept(s) to be rated, and occasionally (c) practice trials in which the rater attempts to rate the concepts using either actual or simulated stimulus materials. Such brief training methods do not adhere to the classical shaping paradigm and thus may yield only partial success in producing raters who perform their rating tasks with both reliability and validity at the completion of training (performance objective). Further, they do not appear to expend any

effort toward creating positive respondent learning and thus may fail to produce raters who are motivated to maintain their reliability and validity throughout the course of the data collection activities (motivational objective).

As Bales (1970) described it, the study of group process involves observing "who does what to whom in the process (time order) of their interaction" (p. 92). Since the cornerstone of all studies in human behavior require "basic observations on which minimally qualified persons will agree" (Loevinger, 1965, p. 81), it is imperative that observers receive sufficient training of adequate potency to render their observations reliable, valid, and credible.

Method.

The Systematic Rater Training Method (SRTM) (Wilson, 1982) is a nine-step model for preparing observers to rate/record their observations with a high degree of reliability and validity over the course of the data collection period. It is based on the work of Borg and Gall (1971), Spool (1978), and Goldstein and Sorcher (1974). It utilizes a classical shaping paradigm blended with activities to increase positive respondent learning (Wilson, 1982; Wilson & Griswold, 1985).

SRTM Components

1. Overview and Contract. Development of clear agreement between raters and investigators based on full disclosure of information relevant to the rater's performance of duties. (Goal: unambiguous performance contract.)

2. Concept Presentation. Presentation of concepts to be rated, scales to be used, etc. (Goal: figurative mastery of rating task.)

3. Stimulation. Activities to generate enthusiasm for competent performance of the rating tasks. (Goal: personal involvement).

4. Modeling. Demonstration of the desired rater target behavior. (Goal: crystalization of desired terminal behavior.)

5. Passive Discrimination. Passive practice in performing rating tasks under training conditions with immediate feedback. (Goal: operative mastery of rating task.)

6. Active Discrimination. Active practice in performing rating tasks under training conditions with immediate feedback. (Goal: operative mastery of rating task.)

7. Production Practice. Active practice in performing rating tasks under training conditions with delayed feedback. (Goal: operative mastery of rating task.)

8. Transfer of Training to Task Performance. Active practice in performing ratings under actual task performance conditions with delayed feedback. (Goal: operative mastery of rating task.)

9. Ongoing Evaluation. Evaluation (with feedback to raters) of rater task performance while data is being collected. (Goal: maintaining performance level through corrective feedback and through encouragement of continued committment.)

Summary

For group process research to flourish, it will be necessary for researchers to once again attend to the careful recording of "who does what to whom in the process...of their interaction" (Bales, 1970). Success depends on the use of carefully trained observers of group process phenomenon assisted by automated data recording devices. This paper has described The GROUP OBSERVER, a computer program for recording group process data and has outlined a method for training observers to record observational data with a high degree of reliability and validity.

References

Bales, R. (1951). Interaction process analysis. Cambridge, MA: Addison-Wesley.

Bales, R. (1970). Personality & interpersonal behavior. NY: Holt, Rinehart, & Winston.

Bales, R. (1980a). Personal communication.

Bales, R. (1980b). SYMLOG case study kit: With instructions for a group self study. New York: Free Press.

Borg, W. R., & Gall, M. D. (1971). Educational research: An introduction (2nd ed.). NY: David McKay Co., Inc.

Carson, R. C. (1969). Interaction concepts of personality. Chicago: Aldine Pub. Co.

Cohen, A. M., & Smith, R. D. (1976). The critical incident in growth groups: Theory and technique. San Diego, CA: University Associates, Inc.

Goldstein, A. P., & Sorcher, M. (1974). Changing supervisor behavior. NY: Pergamon Press.

Hill, W. (1965). HIM: Hill Interaction Matrix. University of Southern California: Youth Studies Center.

Kaul, T., & Bednar, R. (1986). Experiential group research: Results, questions, and suggestions. In S. Garfield, & A. Bergin (Eds.), Handbook of psychotherapy and behavior change (3rd ed., pp. 671-714). New York: Wiley.

Leary, T. (1957). Interpersonal diagnosis of personality. NY: Ronald.

Lieberman, M., Yalom, I., & Miles, M. (1973). Encountergroups: First facts. New York: Basic Books.

Loevinger, J. (1965). Measurement in clinical research. In B. Wolman (Ed.), Handbook of clinical psychology (pp. 78-94). New York: McGraw-Hill.

Spool, M. D. (1978). Training programs for observers of behavior: A review. Personnel Psychology, 31, 853-888.

Stiles, W. B. (1978). Verbal response modes and dimensions of interpersonal roles: A method of discourse analysis. Journal of Personality and Social Psychology, 36(7), 693-703).

Stockton, R., & Morran, K. (1982). Review and perspective of critical dimensions in therapeutic small group research. In G. Gazda (Ed.), Basic approaches to group psychotherapy and group counseling (3rd. ed., pp. 37-85). Springfield, IL: Thomas.

Thibaut, J. W., & Kelley, H. H. (1959). The social psychology of groups. NY: Wiley.

Wilson, F. R., & Conyne, R. K. (1989). Computerized Group Observation in Supervision: Group Analysis Series. Paper presented at the annual meeting of the American Association for Counseling and Development, Boston, Mass.

Wilson, F. R. (1982). Systematic Rater Training Model: An aid to counselors in collecting observational data. Measurement and Evaluation in Guidance, 14, 187-194.

Wilson, F. R., & Griswold, M. L. (1985). The effects of method and comprehensiveness of training on the reliability and validity of ratings of counselor empathy. Measurement and Evaluation in Counseling and Development, 18, 3-11.

Wilson, F. R., Griswold, M. L., & Sunderland, E. (1984). Observer usage in counseling research: An analysis of reporting adequacy. Measurement and Evaluation in Guidance, 17, 40-43.

Wilson, F. R., & Youngman, K. (manuscript in preparation). Observer usage in counseling research: Continuing the analysis of reporting adequacy.

Yalom, I. (1985). (3rd. ed.). The theory and practice of group psychotherapy. New York: Basic Books.